

AMENDMENTS TO THE CLAIMS

Claims 1-42. (Canceled)

43. (Previously Presented) A furnace vacuum deposition system comprising:

- a process chamber maintained at a substantially uniform process chamber pressure of about 200 mTorr or less;

- a substrate pedestal for holding a plurality of semiconductor wafers within the process chamber, the semiconductor wafers comprising a layer of silicon formed thereupon by a process performed within the process chamber at the process chamber pressure; and

- an impurity cell for providing carbon which is incorporated in the layer of silicon during the same process which forms the layer of silicon upon each of the semiconductor wafers within the process chamber and at the same process chamber pressure, the impurity cell is located entirely within the process chamber, the impurity cell is exposed to the same process chamber pressure as the semiconductor wafers during the process which forms the layer of silicon incorporating carbon, the impurity cell is not coupled to any gas inlet, the impurity cell provides carbon to the process chamber by desorption of carbon from the impurity cell due to the process chamber pressure during the process of forming the layer of silicon, the impurity cell comprising:

- a substantially solid material having exposed surfaces located entirely within the process chamber; and

- a carbon-containing fluid adhered on said exposed surfaces.